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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/716,154	11/17/2000	Firass Abi-Nassif	CX098007	7168

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EXAMINER	
MEW, KEVIN D	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/716,154	Applicant(s) ABI-NASSIF, FIRASS	
	Examiner Kevin Mew	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7,9-13,15,16,18,20-23,25,26 and 28* is/are rejected.

7)☒ Claim(s) *5,8,14,17,24 and 27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/17/2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In particular, the abstract exceeds 150 words limit in length. Appropriate correction is required.

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

In particular, the specification is missing the "Brief Summary of the Invention" section.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. **Claims 1-4, 6-7, 9, 10-13, 15-16, 18, 20-23, 25-26, 28** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,215,792. Although the conflicting claims are not identical, they are not patentably distinct from each other. Claims 1, 7 of patent 6,169,744 will differ from claims 1, 10, 20 of the instant application in that the instant application recites the limitations of "taking a first system performance measurement," "taking a second system performance measurement," and "determining a third backoff window size based on the first and second system performance measurements."

However, claim 1of Patent 6,215,792 discloses "**providing ranging opportunities and specifying the first backoff window size for collision resolution; counting a first number of success outcomes in a first sample of N ranging opportunity slots; and determining the first probability of success outcomes equal to the first number of success outcomes divided by N,**" which corresponds to the process of "**taking a second system performance measurement.**" Claim 1 of Patent 6,215,792

also discloses "**providing additional ranging opportunities and specifying the second backoff window size for collision resolution; skipping a number of ranging opportunity slots at least equal to the first backoff window size; counting a second number of success outcomes in a second sample of N ranging opportunity slots; and determining the second probability of success outcomes equal to the second number of success outcomes divided by N,**" which corresponds to the process of "***taking a second system performance measurement.***" Claim 1 of Patent 6,215,792 further discloses "**determining a ratio R having a numerator equal to the second probability of success outcomes minus the first probability of success outcomes and a denominator equal to the second backoff window size minus the first backoff window size; and for selecting a third backoff window size based on at least the ratio R,**" which corresponds to the process of "**determining a third backoff window size based on the first and second system performance measurements.**"

Claims 1, 10, 20 of the instant application merely narrows the scope of the claims 1, 7 of Patent 6,215,792 by adding the aforementioned elements and their functions to claims 1, 7 of the Patent. It has been held that the addition of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd.App.1969); addition of a reference element whose function is not needed would be obvious to one skilled in the art.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-3 and 6** are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art, Wah et al. (U. S. Patent No. 4,630,264).

Regarding claims 1, 2 and 6, Wah et al. (see FIGS. 1-5, col. 7, line 27 to col. 12, line 32) discloses a method for performing initial ranging in conjunction with a contention-based MAC protocol in a shared-medium communication network, the method comprising the steps of: taking a first system performance measurement to obtain a first probability of success outcomes using a first backoff window size; taking a second system performance measurement to obtain a second probability of success outcomes using a second backoff window size different than the first backoff window size; and determining a third backoff window size based on the first and second system performance measurements and the features set forth as claimed (see Fig. 1, col. 7, line 27 to col. 8, line 53).

Regarding claim 3, see col. 7, lines 63-65.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 10-12, 15, 20-22, 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wah.

Regarding claims 10-12, 15, 20-22 and 25, Wah disclosed a method for performing initial ranging comprising the claimed steps discussed above. Wah fails to discloses a computer readable program instructions enabling a computer to perform the claimed steps. However, it would have been obvious to those skilled in the art to code a program instructions to perform Wah's method to better resolve the contention resolution on a shared medium.

6. **Claims 9, 18, 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wah in view of the admitted prior art, Smythe et al. ("Standards for Interactive Multimedia Delivery Across CATV Infrastructures").

Regarding claims 9, 18, 28, Wah, in addition to the steps of the method discussed above, fails to discloses a contention-resolution protocol is a Multimedia Cable Network System (MCNS) protocol. On the other hand, Smythe et al. discloses the standards for interactive multimedia delivery across CATV infrastructures comprising MCNS protocol. It would have been obvious for those skilled in the art to implement Wah's teaching using the MCNS protocol to improve the contention resolution on a shared medium such as CATV.

Allowable Subject Matter

7. Claims 5, 8, 14, 17, 24, 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claims 5, 8, 14, 17, 24, 27, the step of setting the third backoff window size greater than the second backoff window size comprises setting the third backoff window size equal to twice the second backoff window size; and the step of setting the third back off window size less than the second backoff window size comprises setting the third backoff window size equal to half the second backoff window size.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure with respect to system, device, and method for initial ranging in a communication network.

US Patent 4,542,501 to Chevalet et al.

US Patent 4,516,205 to Eing A. et al.

US Patent 4,543,574 to Takagi et al.

US Patent 5,253,252 to Tobol

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 703-305-5300. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KDM
Art Unit 2664

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